

Remarks

Claims 1-7, 12-16, 22, 23, 25, 27-30, 34, 45-47 and 99, as amended, and new claims 100-114 remain in the present application for the Examiner's review and consideration. Claims 4, 8-11, 17-21, 24, 26, 31-33, 35-44, 48-50, and 79-98 have been withdrawn as being directed to non-elected species. Claims 51-78, which are readable on Species IV, have been canceled.

The Examiner also states that claims 85-88 contain the limitation of the valve having a retention material capable of absorbing liquid remaining in the valve and that this limitation is found in unelected Species IV (Figs. 8(a)-8(b)). Applicants respectfully traverse this interpretation. Retention materials can be used in any embodiment of the present invention. See the specification at p. 4, lines 16-21; p. 5, lines 18-22; p. 5, line 31 to page 6, line, 1; p. 17, lines 19-26. See also claims 31, 32, 82, and 85-88. While the retention material can be used with the embodiment of Species IV (Figs. 8(a)-8(b)) (see, *e.g.*, the specification at p. 4, line 28 to p. 5, line 17; and p. 12, line 22 to p. 14, line 15), it is not so limited.

Claim 1 has been amended, as discussed in detail below. Claims 2-50 and 99 have been amended to reflect the revision of claim 1. Claims 100-114 have been added to better define the invention. Support for new dependent claim 100 can be found on page 9, lines 23 to 24 and page 10, lines 7 to 8 of the application, as originally filed. Support for new independent claim 101 can be found on page 10, lines 8-11 of the application, as originally filed. Support for new dependent claims 102-114 can be found in claims 1, 5, 7, 8, 15, 16, 22, 23, 25, 27, 34, and 45-48 as originally filed. As these amendments do not introduce any new matter into the present application, their entry at this time is warranted.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 112

Claim 99 is rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner asserts that the recitation of "the biasing force" lacks antecedent basis. To clarify and move

the case toward allowance, claim 99 has now been amended to note that “each valve component has a different biasing force.”

Rejections under 35 U.S.C. § 102

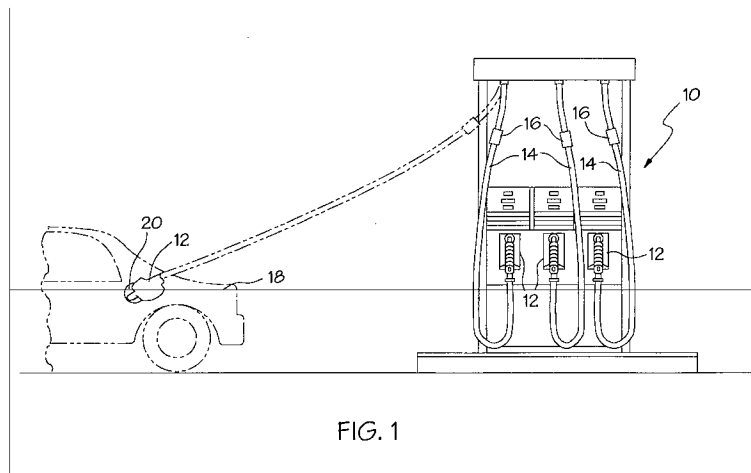
Claims 1-3, 5-7, 12, 15, 16, 22, 25, 27 and 34 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wilder *et al.*, U.S. Patent No. 5,564,471, heretofore Wilder. Specifically, the Examiner asserts that Wilder discloses a valve comprising a first valve component (24) connectable to one of either a fuel supply or a fuel cell and a second valve component (22) connectable to the other of either a fuel supply or a fuel cell. Each component comprises a housing and a biased slidable inner body (38, 98). An O-ring (72) in the second valve component engages the bore (110) of the first valve component to form an inter-component seal, col. 8, lines 15-23.

Claims 1-3, 5-7, 13-16, 23, 25, 27-30, 34, 46, 47 and 99 are also rejected under 35 U.S.C. § 102(b) as being anticipated by Brown *et al.*, U.S. Patent No. 4,327,770, heretofore Brown. Specifically, the Examiner asserts that the patent to Brown discloses a valve comprising a first valve component (28) connectable to one of either a fuel supply or a fuel cell and a second valve component (30) connectable to the other of either a fuel supply or a fuel cell. Each component comprises a housing and a biased slidable inner body (58, 82). O-rings (74, 76) in the first valve component engage a housing section of the second valve component to form an inter-component seal, col. 4, lines 55-64.

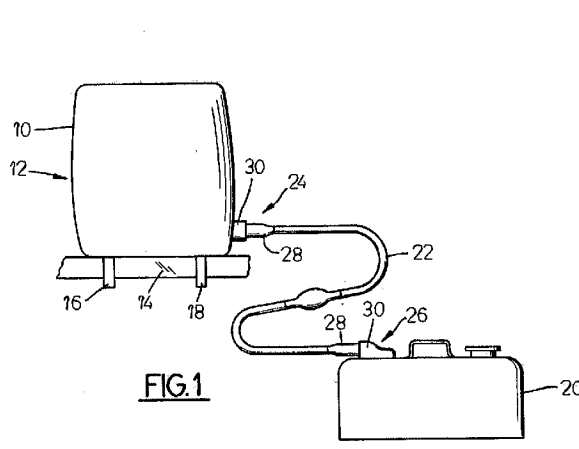
In order to further distinguish the present invention from Wilder and Brown, claim 1 has been amended so that it is now directed towards a fuel cell system comprising a fuel supply, a fuel cell, and a valve. Support for these claim elements can found on page 8, lines 29-30, to page 9, lines 1-2, and Fig. 1(a)-1(c) of the application as originally filed. Neither Wilder nor Brown discloses a fuel cell system, let alone a valve component that communicates with a fuel cell.

Claim 1 has been further amended so that the fuel cell recited therein is adapted to produce electricity. Support for this claim element can be found on page 1, lines 9-10 and page 2, lines 2-13, among other places. Neither Wilder nor Brown disclose such a fuel cell and the electricity that it produces. Rather, Wilder and Brown are in different fields than the

production of electricity. Wilder is directed towards the use of a valve in a gas filling station. Wilder patent, column 4, lines 33-56, and Fig. 1. As shown in Fig. 1 below, each hose **14** includes a breakaway unit **16** (*i.e.*, the valve) that protects fuel “dispenser **10** from serious damage in the event that a vehicle **18** is driven away from the dispenser while the nozzle **12** is in the vehicle’s fuel tank inlet **20**.” Wilder patent, column 4, lines 42-47.



Brown is directed towards the use of a valve for the connection of fluid conduits such as outboard motors and fuel tanks. Brown patent, column 3, lines 38-46, Fig. 1, and abstract. As shown in FIG. 1 below, a “fuel line **22** is joined at one of its ends to the outboard motor **12** by a quick disconnect coupling [*i.e.*, valve] **24** and at its opposite end to the fuel tank **20** by a quick disconnect coupling **26**.” Brown patent, column 3, lines 43-46.



In no way does either Wilder or Brown disclose a fuel cell adapted to produce electricity. Therefore, there cannot be any valid comparison between Wilder and Brown, and Applicants' amended claim 1.

Claim 1 has been further amended so that each valve component is "connected" (rather than "connectable") to either the fuel supply or fuel cell. Support for this positive recitation is found in claims 2 and 3, as originally filed.

With the incorporation of the aforementioned claim elements, claim 1 is not taught or suggested by either Wilder or Brown and is patentable over these references. Claims 2, 3, 5-7, 12-16, 22, 23, 25, 27-30, 34, 46, 47 and 99 all depend upon allowable claim 1 and add further limitations thereto, and therefore are patentable for that reason alone. Applicants reserve the right to further support the patentability of these dependent claims, should that become necessary.

Rejections under 35 U.S.C. § 103

Claim 45 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Neely, U.S. Patent No. 2,865,410, heretofore Neely. Fuel is supplied to the Brown motor (12) from a fuel container (20). The fuel is not supplied from a fuel cartridge. The patent to Neely teaches providing a fuel cartridge (56) for supplying fuel to a motor, col. 4, line 71 through col. 5, line 16. Thus, the Examiner asserts that in view of the teaching of Neely, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brown to include providing a fuel cartridge as an alternate means of supplying a predetermined quantity of fuel to the motor.

In order for an obviousness rejection to be appropriate under § 103(a), the combination of references must teach or suggest all of the claim's limitations. However, for the reasons stated above in the 35 U.S.C. § 102(b) rejection discussion, Wilder does not teach all of the limitations of newly amended claim 1. Because claim 45 depends upon allowable claim 1 and recites further limitations thereto, it cannot be rendered obvious by Wilder in view of Neely and is patentable.

New claims 100-114

As stated above, this group of claims is presented to better define the invention. Dependent 100, which depends upon allowable claim 1, is directed towards a valve comprising springs wherein the “spring constant of the spring in the valve component connected to the fuel supply is lower than the spring constant of the spring in the valve component connected to the fuel cell.” None of the art of record, namely Wilder, Brown, and Neely, discloses these elements. Hence, this claim is presently patentable.

Independent claim 101 is directed to a valve comprising springs wherein the “the spring constant of the spring in the valve component connected to the fuel cell is lower than the spring constant of the spring in the valve component connected to the fuel supply.” None of the art of record, namely Wilder, Brown, and Neely, discloses these elements. Hence, this claim is presently patentable. Claims 102-114 all depend upon claim 101 and add further limitations thereto, and therefore are patentable for that reason alone.

Claims 101-114 read upon elected Species I.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

No additional fees are due for the claims because although 15 new claims (including 1 independent claim) have been added, 25 claims (including 1 independent claim) have been canceled. A Petition for Extension of Time under 37 CFR 1.136(a) and the requisite three-month extension fee of \$120 are submitted herewith. If any additional extension of time is required, it is hereby petitioned for under 37 C.F.R. § 1.136, and if any other required fee is due, the Commissioner may charge appropriate fees to H.T. Than Law Group, Deposit Account No. 50-1980.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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Enclosures: Replacement Sheet (Fig. 15)